OCD-ARTESIA

OCD-ARTESIA

DEC - 4 2008

Form 3160-3 (April 2004)				OMB No	PPROVED 1004-0137 rch 31, 2007				
UNITED ST	5. Lease Serial No.	5. Lease Serial No.							
DEPARTMENT OF T				NM-15007 6. If Indian, Allotee or 7					
BUREAU OF LAND N	BUREAU OF LAND MANAGEMENT								
APPLICATION FOR PERMIT T	APPLICATION FOR PERMIT TO DRILL OR REENTER								
1a. Type of Work: X DRILL RE	ENTER			7. If Unit or CA Agreer	nent, Name and No				
	Pending								
			_	8. Lease Name and We	li No.				
1b. Type of Well. Oul Well X Gas Well Other	XS	ingle Zone Multiple	e Zone	Glenwood 28 Fed	eral Com No. 3				
2 Name of Operator				9. API Well No.	./				
Cimarex Energy Co. of Colorado	[a1	<i>(</i>) 1 1 1 1 1		30-015- 3482					
3a. Address PO Box 140907		(include area code)		10. Field and Pool, or E	xpioratory				
Irving, TX 75014 4. Location of Well (Report location clearly and in accordance	972-401-3			Morrow Wildcat 11. Sec., T. R. M. or Blk. a	and Survivor Area				
			chilo-		ind Survey of Area				
At Surface 1980' FSL & 990' FEI At proposed prod. Zone	History	N detid 4-11	2/16/08	5					
At proposed prod. Zone	variey o,	10 sauces 1 11	A	28-16S-29E					
14. Distance in miles and direction from nearest town or post of	ffice*			12. County or Parish	13. State				
2 miles NE of Loco Hills				Eddy	NM				
15 Distance from proposed*	16 No of acre	es in lease	17. Spaci	ing Unit dedicated to this we	11				
location to nearest property or lease line, ft									
(Also to nearest drig, unit line if		000	52.220						
any) 990' 18 Distance from proposed location*	19. Proposed	920 Depth	20. BLM	/BIA Bond No. on File					
to nearest well, drilling, completed,		,,,							
applied for, on this lease, ft		10.600		ND 4 0575					
NA 21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22 Approxim	10,600' nate date work will start	<u> </u>	NM-2575 23. Estimated duration					
21. Elevations (Show whether D1, RDD, R1, GE, etc.)	, ripproxim	pproximate date work will start							
3,632' GR		05.01.08		35-45	days				
	24.	24. Attachments							
The following, completed in accordance with the requirements of	Onshore Oil and	Gas Order No. 1, shall b	be attached t	o this form:					
Well plat certified by a registered surveyor		4. Bond to cover	the operation	ons unless covered by an exis	ting bond on file (see				
 A Drilling Plan A Surface Use Plan (if the location is on National Forest Syste 	om Lands the	Item 20 above 5. Operator Cert							
SUPO shall be filed with the appropriate Forest Service Office				formation and/or plans as ma	y be required by the				
		authorized off	ficer						
25. Signature	Name ((Printed/Typed)			Date				
Zeno Farin	Zen	o Farris			03.07.08				
Title									
Manager Operations Administration Approved By (Signature)	Name ((Printed/Typed)			Date				
/s/ James Stovall			mes St	ovall	DEC 0 2 2008				
Title	Office			O V (411					
FIELD MANAGER		CARLSBAI) FIEL	D OFFICE					
Application approval does not warrant or certify that the applicant holds le conduct operations thereon.	egal or equitable titl	e to those rights in the subj	ect lease which	h would entitle the applicant to	10.1.				
Conditions of approval, if any, are attached				ROVAL FOR TW					
Title 18 U.S.S. Section 1001 and Title 43 U.S.C. Section 1212, make it a c States any false, fictitious, or fraudulent statements or representations as t			make to any	department or agency of the Uni	ited				
* (Instantant of the control of the					* *************************************				

ROSWELL CONTROLLED WATER BASIN

SEE/ATTACHED FUR CONDITIONS OF APPROVAL APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

Form 3160-5 (November 1994)

OCD-ARTESIA **UNITED STATES** DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

FORM APPRO	VE
OMB No. 1004-	-013
Frankson bala 64	400

Lease Serial No.

SUNDRY NOTICES AND REPORTS ON WELLS

NM-15007

6.	If Indian, Allott	ee or Tribe	Name

Do n aban	6. If India	n, Allottee or Tribe Name							
	7. If Unit	or CA/Agreement, Name and/or No.							
SUBMIT IN TRI									
Type of Well Oil Well X Gas Well									
2. Name of Operator				Glenwood	d "28" Federal Com 3				
Cimarex Energy Co. of Colorad	0			9. API W	ell No.				
3a. Address		3b. Phone No. (include	e area code)	30-015-					
PO Box 140907; Irving, TX 7503	14-0907	972-401-3111		10. Field a	and Pool, or Exploratory Area				
4. Location of Well (Footage, Sec., T., R., M.		Morrow Wildcat							
SHL 1980' FSL & 890' FEL				11. County or Parish, State					
28-16S-29E				Eddy County, NM					
12. CHECK APF	PROPRIATE BOX(ES) TO	O INDICATE NAT	URE OF NOTIC	E, REPOR	T, OR OTHER DATA				
TYPE OF SUBMISSION		T	YPE OF ACTION						
X Notice of Intent	Acidıze	Deepen	Production (Start/l	Resume)	Water Shut-Off				
	Alter Casing	Fracture Treat	Reclamation		Well Integrity				
Subsequent Report	Casing Repair	New Construction	Recomplete		X Other Change Location				
	Change Plans	Plug and Abandon	Temporarily Aban	don					
Final Abandonment Notice	Convert to Injection	Plug Back	Water Disposal						
13. Describe Proposed or Completed Operation	• •	_	* * * *	• •					
If the proposal is to decrease directionally as		waaa laaakkana and maaanii	ad and touch variant dans	tha of all madinar	t markets and zance				

If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Cimarex has changed its SHL location for the proposed Glenwood "28" Federal Com No. 3 well. Per BLM request

Old Location

SHL 1980' FSL & 990' FEL

28-16S-29E

New Location

SHL 1980' FSL & 890' FEL

28-16S-29E

ok c.1.05/16/08

Please see attached revised plats and revised preliminary directional survey.

14. I hereby certify that the foregoing is	s true and correct					
Name (Printed/Typed)	Title					
Scott Haynes	Regula	tory Analyst				
Signature	Date					
Soutan	April 1	April 11, 2008				
	THIS SPACE FOR FEDERAL OR	STATE OFFICE USE				
Approved by	/s/ James Stovali	FIELD MANAGER DEC 0 2 2008				
Conditions of Approval, if any, are at	tached. Approval of this notice does not warrant or	Office				
certify that the applicant holds legal of	or equitable title to those rights in the subject lease	CARLSBAD FIELD OFFICE				
which would entitle the applicant to o	conduct operations thereon.	CARLODAD FIELD OFFICE				

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

DISTRICT I 1525 N. French Rr., Hobbs, NM 88840 DISTRICT II

State of New Mexico Energy, Minerals and Natural Resources Department

Form C-102 Revised October 12, 2005

Submit to Appropriate District Office

DISTRICT III 1000 Rio Brasos Rd., Astec, NM 87410

1301 W. Srand Avenue, Artesia, MM 88210

OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, New Mexico 87505

State Lease - 4 Copies Fee Lease - 3 Copies

DISTRICT IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

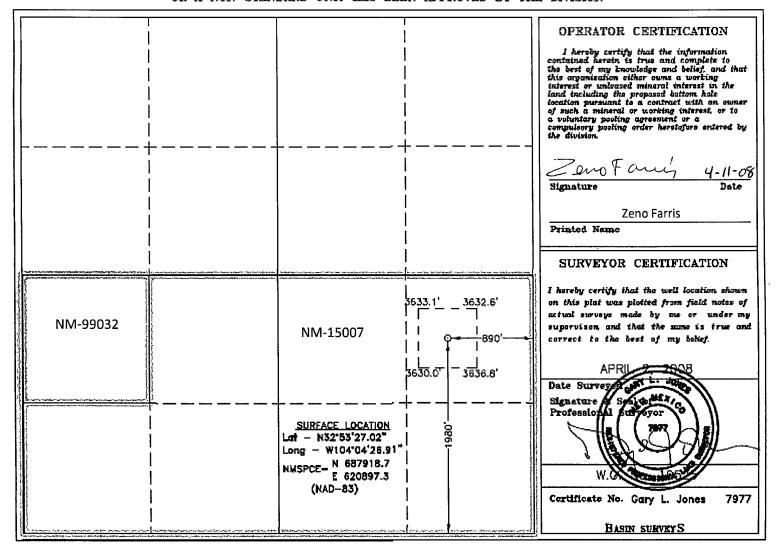
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

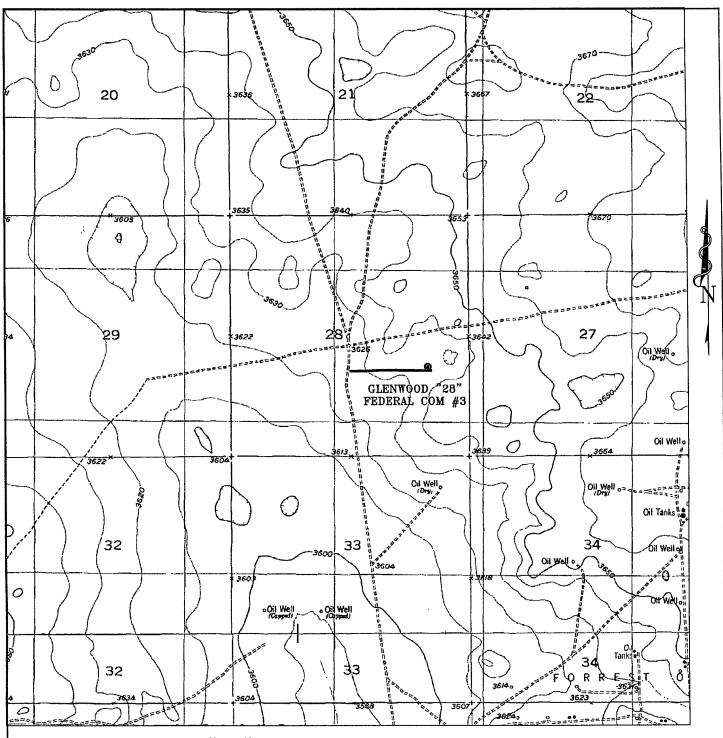
30 · 015 · 36824	9 6 07 Pool Code	Pool Name Morrow; Wildcat		
Property Code 37023	_	erty Name 8" FEDERAL COM	Well Number 3	
OGRID No. 162683	-	ator Name CO. OF COLORADO	Elevation 3632'	

Surface Location										
UL or let No.	Section	Township	Range	Lot Idn	Feet from the	North/South Hac	Feet from the	East/West line	County	
ļ ,	28	16 S	29 E		1980	SOUTH	890	EAST	EDDY	
			Bottom	Hole Lo	cation If Diffe	erent From Sur	face			
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County	
Dedicated Acre	s Joint c	r Infill	Consolidation	Code 01	der No.					
320										

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



SECTION 28, TOWNSHIP 16 SOUTH, RANGE 29 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO. 3633.1' 3632.6 600 150' NORTH OFF SET 3632.2' CIMAREX ENERGY CO. OF COLORADO GLENWOOD "28" FEDERAL COM #3 ELEV. - 3632' 150' EAST 150' WEST OFF SET□ 0 3631.4" 3633.1 Lat.-N 32'53'27.02" / Long-W 104'04'26.91" _(NAD=83)_ _ EXISTING LEASE ROAD 1585.0 150' SOUTH OFF SET 3632,1 3630.0 600 3636.8 200 400 FEET 200 0 Directions to Location: SCALE: 1" = 200' FROM THE JUNCTION OF US HWY 82 AND BARNIVAL CIMAREX ENERGY CO. OF COLORADO DRAW, GO NORTH ON BARINIVAL DRAW FOR APPROX. 5.0 MILES TO LEASE ROAD AND PROPOSED LEASE ROAD. GLENWOOD "28" FEDERAL COM #3 / WELL PAD TOPO THE GLENWOOD "28" FEDERAL COM #3 LOCATED 1980' FROM THE SOUTH LINE AND 890' FROM THE EAST LINE OF SECTION 28, TOWNSHIP 16 SOUTH, RANGE 29 EAST, BASIN SURVEYS P.O. BOX 1786-HOBBS, NEW MEXICO J. SMALL N.M.P.M., EDDY COUNTY, NEW MEXICO. W.O. Number: 19525 Drawn By: Sheets Date: 04-07-2008 Survey Date: 04-02-2008 Sheet Disk: JMS 19525W



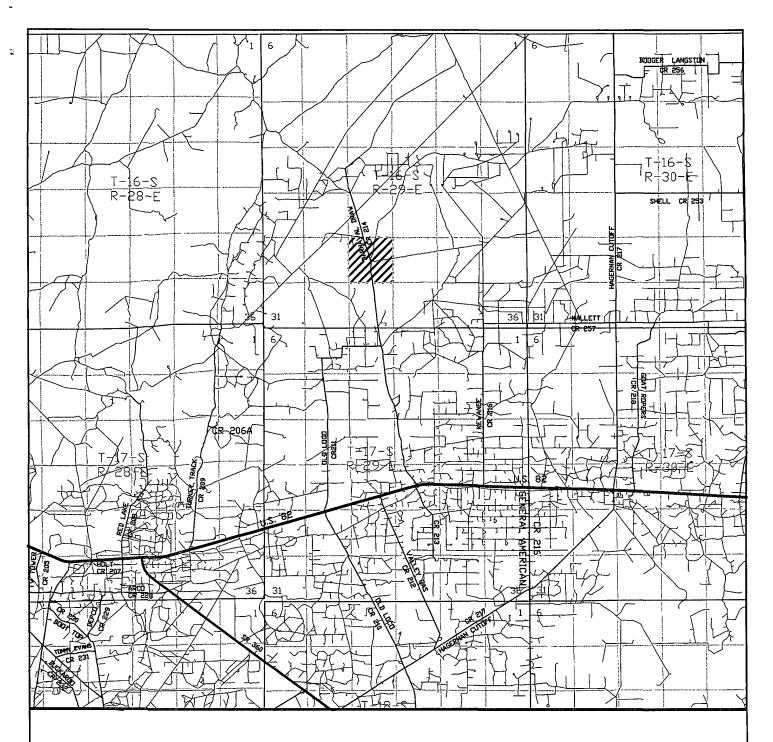
GLENWOOD "28" FEDERAL COM #3 Located 1980' FSL and 890' FEL Section 28, Township 16 South, Range 29 East, N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786 1120 N. West County Rd. Hobbs, New Mexico 88241 (505) 393-7316 - Office (505) 392-3074 - Fax basinsurveys.com

W.O. Number: JMS 19525T	_
Survey Date: 04—02—2008	
Scale: 1" = 2000'	_
Date: 04-07-2008	•

CIMAREX ENERGY CO. OF COLORADO



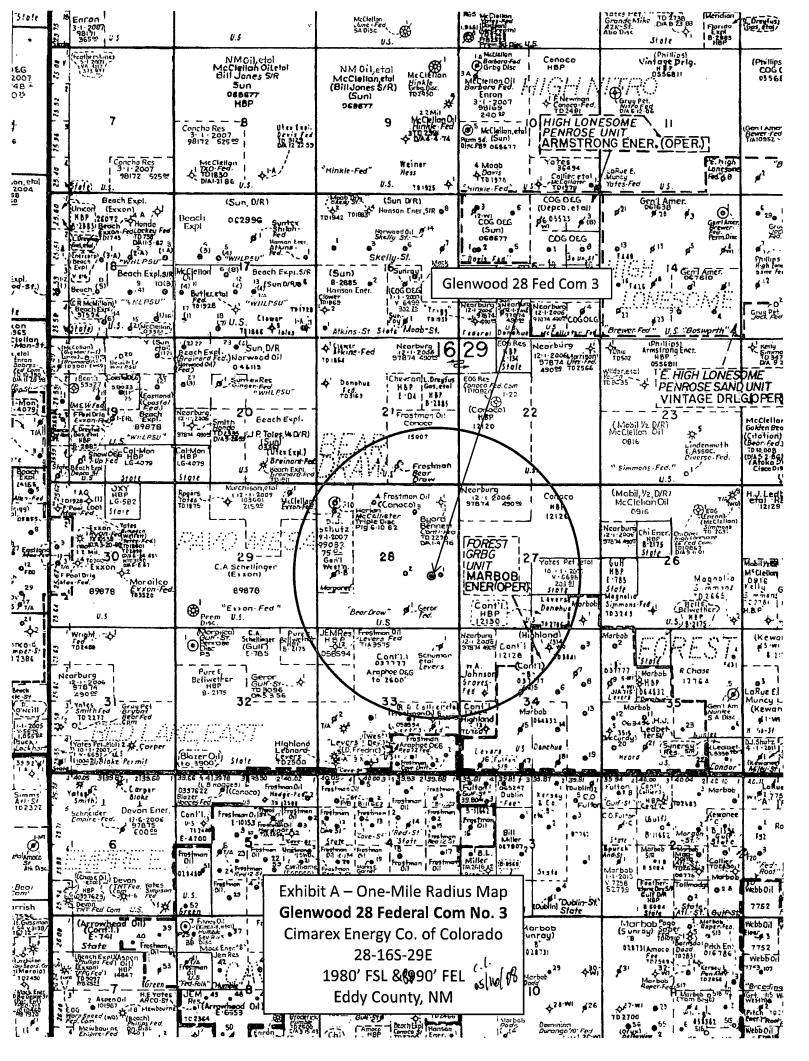
GLENWOOD "28" FEDERAL COM #3 Located 1980' FSL and 890' FEL Section 28, Township 16 South, Range 29 East, N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786 1120 N. West County Rd. Hobbs, New Mexico 88241 (505) 393-7316 - Office (505) 392-3074 - Fax basinsurveys.com

W.O. Number: JMS 19525TR	
Survey Date: 04-02-2008	_
Scale: 1" = 2 MILES	
Date: 04-07-2008	_

CIMAREX ENERGY CO. OF COLORADO



Application to Drill Cimarex Energy Co. of Colorado Glenwood 28 Federal Com No. 3

Unit I, Section 28 T16S R29E, Eddy County, NM

In response to questions asked under Section II B of Bulletin NTL-6, the following information is provided for your consideration:

1 Location:

1980' FSL & 990' FEL

2 Elevation above sea level:

3,632 GR

3 Geologic name of surface formation:

Quaternery Alluvium Deposits

4 Drilling tools and associated equipment:

Conventional rotary drilling rig using fluid as a circulating medium for

solids removal.

5 Proposed drilling depth:

10,600'

6 Estimated tops of geological markers:

Grayburg	2,070'
San Andres	2,530'
Abo	5,970¹
Wolfcamp	7,290'
U.Strawn SS	9,570¹
Atoka Clastics .	9,970'
Morrow Clastics	10,350'
Miss Unc.	10,475'

7 Possible mineral bearing formation:

Morrow Gas Atoka Gas Strawn Oil Abo Oil

Secons

8 Proposed Mud Circulating System:

	Depth)	Mud Wt	Visc	Fluid Loss	Type Mud		
 ;	0	to	306 355°	8.4 - 8.6	.4 - 8.6 30-32 NC FW spud mud, use high-viso keep hole clean				
	360 . 355 '	to	2,650'	10.0	28-29	NC	Brine Water		
	2,650'	to	8,300'	8.4 - 8.6	28-29	NC	Fresh water and brine		
	8,300	to	10,600	8.6 - 9.4	28-29	NC	Brine with caustic for pH control		

Sufficient mud materials will be kept on location at all times in order to combat lost circulation or unexpected kicks. In order to run DSTs, open hole logs, and casing, the viscosity and water loss may have to be adjusted. Mud system monitoring equipment with derrick floor indicators and visual/audio alarms shall be installed and operative prior to drilling into the Wolfcamp formation. This equipment will remain in use until production casing is run and cemented.

Application to Drill Cimarex Energy Co. of Colorado Glenwood 28 Federal Com No. 3

Unit I, Section 28 T16S R29E, Eddy County, NM

Casing & Cementing Program: 9

and a											
Hole Size	Depth Sec (0)		° Casir	ng OD	Weight	Thread	Collar	Grade			
17½"	0	to	,355 [']	New	13¾"	48#	8-R	STC	H-40		
12¼"	0	to	2,650'	New	85/8"	24#	8-R	STC	J-55		
71/8"	0	to	10,600'	New	5½"	17#	8-R	LTC	P-110		

10 Cementing & Setting Depth:

See COA's 13%"

Surface

300

Set 3551 of 13%"

48# H-40

STC

Lead: 200 sx Thixotropic (wt 14.2, yld 1.64)

Tail: 220 sx Premium Plus + 2% CaCl₂ (wt 14.8, yld 1.4)

TOC Surface

85%11

Intermediate

Set 2,650' of

85/811

24#

J-55

STC

Lead #1: 200 sx Premium Plus Thixotropic + 10# Gilsonite + 10# Cal-

Seal + 1% CaCl₂ + 0.25# Poly-e-flake (wt 14.2, yld 1.63)

Lead #2: 531 sx Interfill C + 0.125# Poly-e-flake (wt 11.9, yld 2.45)

Tail: 100 sx Premium Plus C + 1% CaCl₂ (wt 14.8, yld 1.34)

TOC Surface

5½"

Production

Set 10.600' of

51/2"

P-110 17#

LTC

<u>Lead:</u> 625 sx Interfill H + 0.25% HR-7 + 5# Gilsonite + 0.125# Poly-e-

flake + 0.2% CFR-3 w/o defoamer (wt 11.9, yld 2.46)

Tail: 800 sx Permian Basin Super H + 0.5% Halad-344 + 0.25% D-AIR 3000 + 0.4% CFR-3 w/0 defoamer + 1# Salt Bulk + 5# Gilsonite + 0.125#

Poly-e-flake + 0.35% HR-7 (wt 13.2, yld 1.61)

TOC 2,450'

See COA

Fresh water will be protected by setting 13%"

casing at

355' and cementing to Surface

Hydrocarbon zones will be protected by setting

8%"

casing at 2,650' and cementing to Surface

and by setting

5½"

casing at 10,600' and cementing to 2450'

Cimarex uses the following minimum safety factors:

Burst

Collapse

Tension

1.125

1.125

1.80

Application to Drill Cimarex Energy Co. of Colorado Glenwood 28 Federal Com No. 3

Unit I, Section 28 T16S R29E, Eddy County, NM

11 Pressure control Equipment:

Exhibit "E". A 13%" 5000 PSI working pressure B.O.P. consisting of one set of blind rams and one set of pipe rams and a 5000 # annular type preventer. A choke manifold and 120 gallon accumulator with floor and remote operating stations and auxiliary power system. Rotating head below 6000'. A kelly cock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor.

BOP unit will be hydraulically operated. BOP will be nippled up and operated at least once a day while drilling and the blind rams will be operated when out of hole during trips. No abnormal pressure or temperature is expected while drilling. From the base of the surface pipe through the running of production casing, the well will be equipped with a 5000 psi BOP system.

We are requesting a variance for testing the 13%" surface casing from Onshore Order No. 2, which states that all casing strings below the conductor shall be pressure tested to 0.22 psi per foot or 1500 psi, whichever is greater, but not to exceed 70% of the manufacturer's stated maximum internal yield. We are requesting to test the 13%" casing to 1000 psi using rig pumps. The BOP will be tested to 5000 psi by an independent service company.

12 <u>Testing, Logging and Coring Program:</u>

A. Mud logging

2 man unit from 2650' to TD

- B. Electric logging program: CNL / LDT / CAL / GR, DLL / CAL / GR
- C. No DSTs or cores are planned at this time.

13 Potential Hazards:

No abnormal pressures or temperatures are expected. The area has a potiential H2S hazard. An H_2 drilling plan is attached. Adequate flare lines will be installed off the mud / gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used.

Estimated BHP 4000 psi Estimated BHT 155

14 Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved.

Drilling expected to take 35-45 days

If production casing is run an additional 30 days will be required to complete and construct surface facilities.

15 Other Facets of Operations:

After running casing, cased hole gamma ray neutron collar logs will be run from total depth over possible pay intervals.

Morrow pay will be perforated and stimulated.

The proposed well will be tested and potentialed as

a gas well.

Rig 75

Cimarex Energy Co. of Colorado

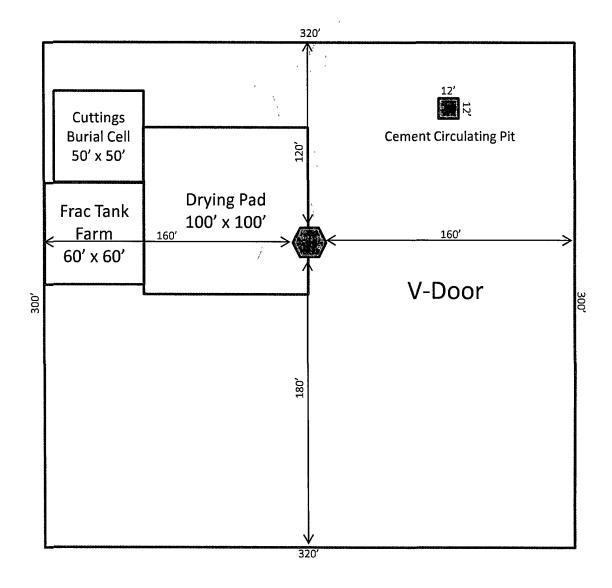


Exhibit D – Rig Layout

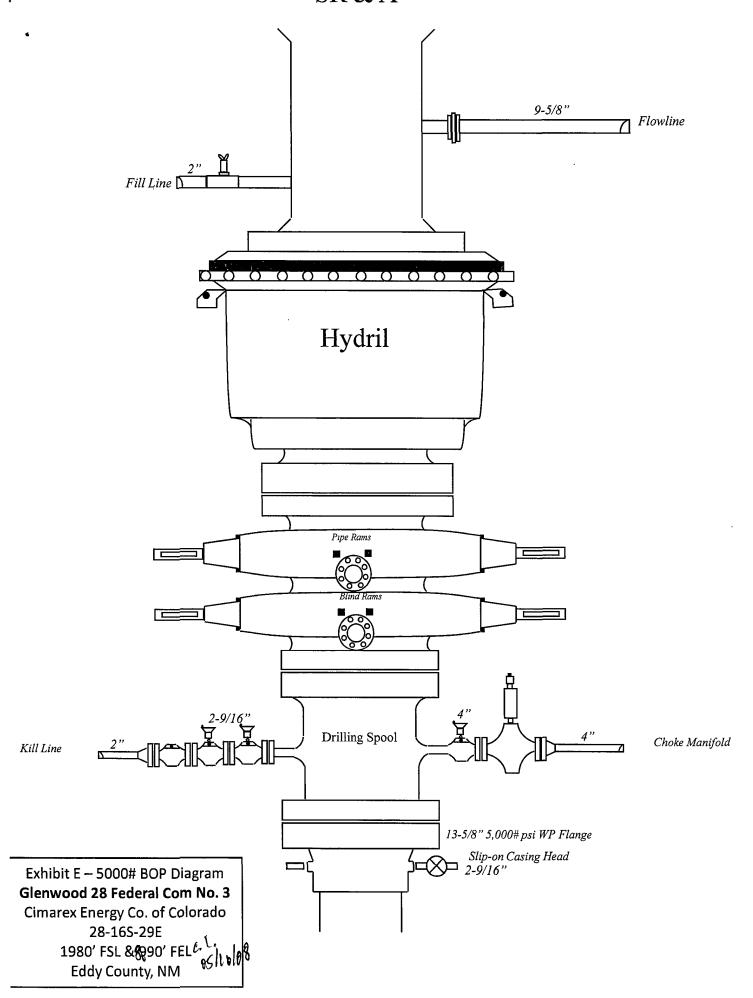
Glenwood 28 Federal Com No. 3

Cimarex Energy Co. of Colorado

28-16S-29E

1980' FSL 88990' FEL C. (

Eddy County, NM



ORILLING OPERATIONS CHOKE MANIFOLD 5M SERVICE

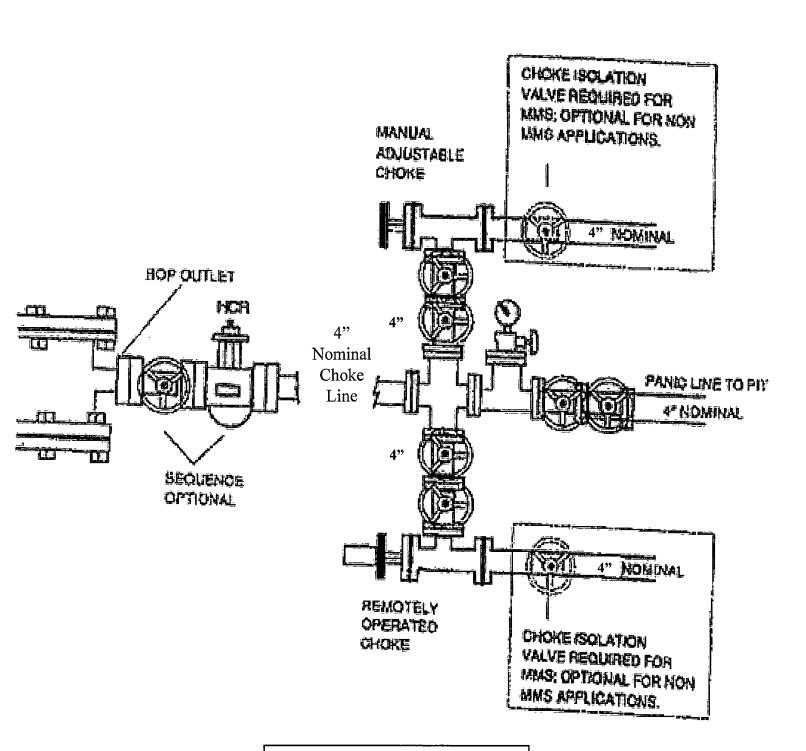


Exhibit E-1 — Choke Manifold Diagram

Glenwood 28 Federal Com No. 3

Cimarex Energy Co. of Colorado

28-16S-29E

1980' FSL & 90' FEL

Eddy County, NM

Hydrogen Sulfide Drilling Operations Plan Cimarex Energy Co. of Colorado Glenwood 28 Federal Com No. 3

Unit I, Section 28 T16S R29E, Eddy County, NM

- 1 All Company and Contract personnel admitted on location must be trained by a qualified H₂S safety instructor to the following:
 - A. Characteristics of H₂S
 - B. Physical effects and hazards
 - C. Proper use of safety equipment and life support systems.
 - D. Principle and operation of H₂S detectors, warning system and briefing areas.
 - E. Evacuation procedure, routes and first aid.
 - F. Proper use of 30 minute pressure demand air pack.
- 2 H₂S Detection and Alarm Systems:
 - A. H₂S detectors and audio alarm system to be located at bell nipple, end of flow line (mud pit) and on derrick floor or doghouse.
- 3 Windsock and/or wind streamers:
 - A. Windsock at mudpit area should be high enough to be visible.
 - B. Windsock at briefing area should be high enough to be visible.
- 4 Condition Flags and Signs:
 - A. Warning sign on access road to location.
 - B. Flags to be displayed on sign at entrance to location. Green flag indicates normal safe condition. Yellow flag indicates potential pressure and danger. Red flag indicates danger (H₂S present in dangerous concentration). Only emergency personnel admitted to location.
- 5 Well control equipment:
 - A. See exhibit "E"
- 6 Communication:
 - A. While working under masks chalkboards will be used for communication.
 - B. Hand signals will be used where chalk board is inappropriate.
 - C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at most drilling foreman's trailer or living quarters.
- 7 Drillstem Testing:

No DSTs or cores are planned at this time.

- 8 Drilling contractor supervisor will be required to be familiar with the effects H₂S has on tubular goods and other mechanical equipment.
- 9 If H₂S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas seperator will be brought into service along with H₂S scavengers if necessary.

Unit I, Section 28 T16S R29E, Eddy County, NM

- 1 EXISTING ROADS: Area maps, Exhibit "B" is a reproduction of Eddy Co. General Highway Map. Exhibit "C" is a reproduction of a USGS Topographic Map, showing existing roads and proposed roads. All existing roads will be maintained in a condition equal to or better than current conditions. Any new roads will be constructed to BLM specifications.
 - A. Exhibit "A" shows the proposed well site as staked.
 - B. From the junction of US Hwy 82 and Barnival Draw, go North on Barnival Draw for approx 5.0 miles to lease road.
- 2 PLANNED ACCESS ROADS: No new lease roads are proposed.
- 3 LOCATION OF EXISTING WELLS IN A ONE-MILE RADIUS EXHIBIT "A":

A. Water wells -

None known

B. Disposal wells -

None known

C. Drilling wells -

None known

D. Producing wells -

As shown on Exhibit "A"

E. Abandoned wells -

As shown on Exhibit "A"

Unit I, Section 28 T16S R29E, Eddy County, NM

4 If on completion this well is a producer, Cimarex Energy Co. of Colorado will furnish maps and/or plats showing on site facilities or off site facilities if needed. This will be accompanied by a Sundry Notice.

5 <u>Location and Type of Water Supply:</u>

Water will be purchased locally from a commercial source and trucked over the access roads or piped in flexible lines laid on top of the ground.

6 Source of Construction Material:

If possible, construction will be obtained from the excavation of drill site. If additional material is needed, it will be purchased from a local source and transported over the access route as shown on Exhibit "C".

7 Methods of Handling Waste Material:

- A. Drill cuttings will be seperated by a series of solids removal equipment and hauled to the cuttings drying area and then disposed of in the cuttings burial cell.
- B. All trash, junk and other waste material will be contained in trash cages or bins to prevent scattering. When the job is completed all contents will be removed and disposed of in an approved sanitary land fill.
- C. Salts remaining after completion of well will be picked up by supplier including broken sacks.
- D. Sewage from living quarters will drain into holding tanks and be cleaned out periodically. A Porta-John will be provided for the rig crews. This equipment will be properly maintained during the drilling operations and removed upon completion of the well.
- E. Drilling fluids will be contained in steel pits in a closed circulating system. Fluids will be cleaned and reused. Water produced during testing will be contained in the steel pits and disposed of at a state approved disposal facility. Any oil or condensate produced will be stored in test tanks until sold and hauled from the site.

8 Ancillary Facilities:

A. No camps or airstrips to be constructed.

Unit I, Section 28 T16S R29E, Eddy County, NM

9 Well Site Layout:

- A. Exhibit "D" shows location and rig layout.
- B. This exhibit indicates proposed location of the 100' X 100' cuttings drying area.
- C. Mud pits in the closed circulating system will be steel pits and the cuttings drying area will be surrounded by a 2' X 2' ring levee and a 2' earthen berm. A 12 mil liner will cover the cuttings drying area and extend a minimum of 2' over the earthen berm where it will be anchored down. A pump off system will pump any accumulated fluids in the ring levee to the rig holding tanks to be cleaned and reused.
- D. After drying cuttings will be disposed of in a 50' X 50' cuttings burial cell. The bottom will be lined with a 12 mil liner. Drill cuttings will be hauled from the cuttings drying area and encapsulated in a 12 mil liner. The 12 mil liner will be folded over the cuttings and capped with a 20 mil membrane cap. The cell will be filled with 3' to 4' of top soil and leveled and contoured to conform to the original surrounding area.
- E. If the well is a producer, the cuttings burial area and those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements.

10 Plans for Restoration of Surface:

Rehabilitation of the location and cuttings burial cell will start in a timely manner after all drilling operations cease. The type of reclamation will depend on whether the well is a producer or a dry hole.

However, in either event, the drill cuttings will be allowed to dry properly, and fluid removed and disposed of in accordance with Article 7.B as previously noted. The cuttings burial area will then be leveled and contoured to conform to the original and surrounding area. Drainage systems, if any, will be reshaped to the original configuration with provisions made to alleviate erosion. These may need to be modified in certain circumstances to prevent inundation of the location's pad and surface facilities. After the area has been shaped and contoured, topsoil from the spoil pile will be placed over the disturbed area to the extent possible. Revegetation procedures will comply with BLM standards.

If the well is a dry hole, the pad and road area will be recountoured to match the existing terrain. Topsoil will be spread to the extent possible. Revegetation will comply with BLM standards.

Should the well be a producer, the previously noted procedures will apply to those areas which are not required for production facilities.

Unit I, Section 28 T16S R29E, Eddy County, NM

11 OTHER INFORMATION:

- A. Topography consists of a sloping plane with loose tan sands. Vegetation is mainly yucca, mesquite and shin oak.
- B. The wellsite is on surface owned by the Department of the Interior, Bureau of Land Management. The land is used mainly for farming, cattle ranching, recreational use, and oil and gas production.
- C. An Archaeological survey will be conducted on the location and proposed roads, and this report will be filed with the Bureau of Land Management in the Carlsbad BLM office.
- D. There are no know dwellings within 1 1/2 miles of this location.

Operator Certification Statement Cimarex Energy Co. of Colorado Glenwood 28 Federal Com No. 3

Unit I, Section 28 T16S R29E, Eddy County, NM

Operator's Representative:

Cimarex Energy Co. of Colorado P.O. Box 140907 Irving, TX 75014

Office Phone: (972) 443-6489

Zeno Farris

CERTIFICATION: I hereby certify that the statements and plans made in this APD are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Cimarex Energy Co. of Colorado and/or its contractors/subcontractors and is in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provision of U.S.C. 1001 for the filing of a false statement.

NAME:	Zeno Fari	
	Zeno Farris	
DATE:	March 7, 2008	
TITLE:	Manager Operations Administration	

PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Cimarex Energy Co Of Colorado
LEASE NO.:	NM-15007
WELL NAME & NO.:	3-Glenwood 28 Fedeal
SURFACE HOLE FOOTAGE:	1980' FSL & 890' FEL
BOTTOM HOLE FOOTAGE	Same
LOCATION:	Section 28, T. 16 S., R 29 E., NMPM
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or

special COAs are required, the section with the deviation or requirement will be checked below. **General Provisions Permit Expiration** Archaeology, Paleontology, and Historical Sites **Noxious Weeds** Special Requirements Hydrology Archeology **Construction** Notification Topsoil Cuttings Burial Cell Federal Mineral Material Pits Well Pads Roads **Road Section Diagram Drilling Production (Post Drilling)** Well Structures & Facilities Pipelines -Electric Lines **Cutting Burial Cell/Interim Reclamation** Final Abandonment/Reclamation

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

Mitigation Measures: The mitigation measures include the Pecos District Conditions of Approval, and the entire location needs to be bermed in order to prevent spills of hydrocarbons or fluids into a nearby sink hole.

Glenwood 28 Federal Com. #3: Pit North V-Door East



EXHIBIT NO.	1

Date of Issue: 11/19/2008

Bureau of Land Management, Carlsbad Field Office 620 E. Greene Street Carlsbad, NM 88220

Cultural and Archaeological Resources

BLM Report No. 09-NM-523-139

NOTICE OF STIPULATIONS

<u>Historic properties</u> in the vicinity of this project are protected by federal law. In order to ensure that they are not damaged or destroyed by construction activities, the project proponent and construction supervisors shall ensure that the following stipulations are implemented.

Project Name:	Glenwood 28 Number 3 Well Access Road	
REQUIRED	D 1). A 3-day preconstruction call-in notification. Contact BLM Inspection and Enforcement at (505) 234 5977 or 5909 to establish a construction start date.	
REQUIRED	2. Professional archaeological monitoring. Contact your project archaeologist, or BLM's Cultural Resources Section at (505) 234-5980, 5917, or 5986, for assistance.	
A. 🛛	These stipulations must be given to your monitor at least <u>5 days</u> prior to the start of construction.	
В. 🗌	No construction, including vegetation removal or other site prep may begin prior to the arrival of the monitor.	
	3. Cultural site barrier fencing. (Your monitor will assist you).	
A. [A temporary site protection barrier(s) shall be erected prior to all ground-disturbing activities. The minimum barrier(s) shall consist of upright wooden survey lath spaced no more than ten (10) feet apart and marked with blue ribbon flagging or blue paint. There shall be no construction activities or vehicular traffic past the barrier(s) at any time.	
В. 🔲	A permanent, 4-strand barbed wire fence strung on standard "T-posts" shall be erected prior to all ground-disturbing activities. No construction activities or vehicle traffic are allowed past the fence.	
* * * * * * * * * * * * * * * * * * * *	4. The archaeological monitor shall:	
A. 🗌	Ensure that all site protection barriers are located as indicated on the attached map(s).	
В. 🖂	Observe all ground-disturbing activities within 100 feet of cultural site no. (s)LA159662, as shown on the attached map(s).	
C. 🔯	Ensure that all reroutes are adhered to avoid cultural site no.(s) LA	
D. 🔲	Ensure the proposed is/are located as shown on the attached map(s).	
E . 🖂	Submit a brief monitoring report within 30 days of completion of monitoring.	
Other:	No earth disturbance will take place within the area marked on the attached map. Caliche may be placed on the existing	

<u>Site Protection and Employee Education</u>: It is the responsibility of the project proponent and his construction supervisor to inform all employees and subcontractors that cultural and archaeological sites are to be avoided by all personnel, vehicles, and equipment; and that it is illegal to collect, damage, or disturb cultural resources on Public Lands.

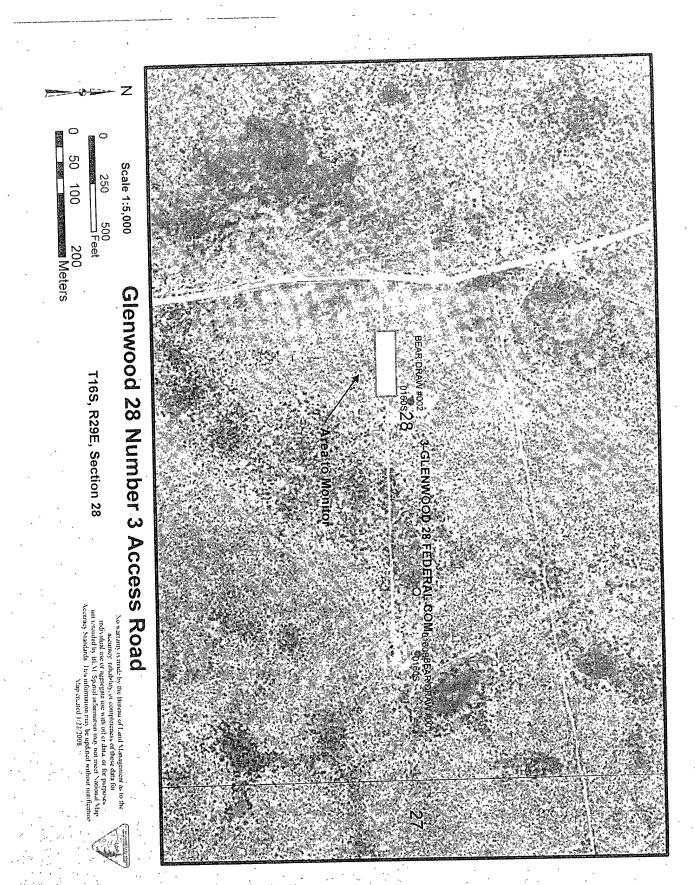
For assistance, contact BLM Cultural Resources:

Martin Stein (575) 234-5980 George MacDonell (575) 234-2228

Bruce Boeke (575) 234-5917

James Smith (575) 234-5986

Exhibit 2 – Map of Area to Monitor



VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (505) 234-5972 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall stockpile the topsoil of the well pad. The topsoil shall not be used to backfill the reserve pit and will be used for interim and final reclamation.

C. Cuttings Burial Cell

The Cuttings Burial Cell shall be constructed and closed in accordance with the NMOCD rules.

The cuttings burial cell shall be constructed 50' X 50' on the North side of the well pad V-Door East.

The cuttings burial cell shall be constructed, so that upon completion of drilling operations, the dried cell contents shall be buried a minimum depth of three feet below ground level. Should the cell content level not meet the three foot minimum depth requirement, the excess contents shall be removed until the required minimum depth of three feet below ground level has been met. The operator shall properly dispose of the excess contents at an authorized disposal site.

The cuttings burial cell shall be constructed and maintained so that runoff water from outside the location is not allowed to enter the burial cell. The berms surrounding the entire perimeter of the burial cell shall extend a minimum of two (2) feet above ground level. At no time will standing fluids in the pit be allowed to rise above ground level.

The cuttings burial cell shall be fenced on three (3) sides during drilling operations. The fourth side shall be fenced immediately upon rig release.

D. FEDERAL MINERAL MATERIALS PIT

If the operator elects to surface the access road and/or well pad, mineral materials extracted during construction of the cuttings burial cell may be used for surfacing the well pad and access road and other facilities on the lease.

Payment shall be made to the BLM prior to removal of any additional federal mineral materials from any site other than the cutting burial cell. Call the Carlsbad Field Office at (505) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.

The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. ON LEASE ACCESS ROADS

Road Width

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed thirty (30) feet.

Surfacing

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning

Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

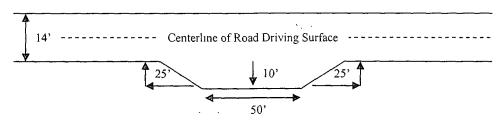
Ditching

Ditching shall be required on both sides of the road.

Turnouts

Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:

Standard Turnout - Plan View

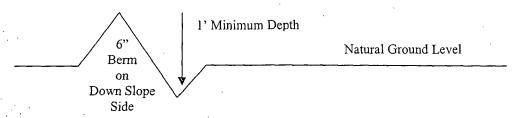


Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

400 foot road with 4% road slope:
$$\frac{400^{\circ}}{4\%}$$
 + 100' = 200' lead-off ditch interval

Culvert Installations

Appropriately sized culvert(s) shall be installed at the deep waterway channel flow crossing.

Cattleguards

An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations.

A gate shall be constructed and fastened securely to H-braces.

Fence Requirement

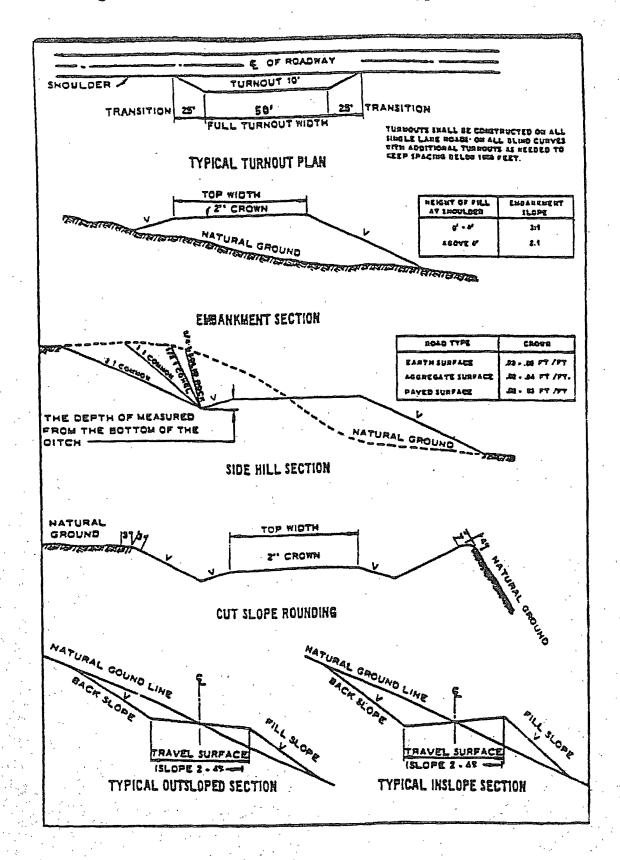
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Figure 1 – Cross Sections and Plans For Typical Road Sections



VII. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of **4 hours** in advance for a representative to witness:

- a. Spudding well
- b. Setting and/or Cementing of all casing strings
- c. BOP/BOPE tests
 - Chaves and Roosevelt Counties, T16S Eddy County
 Call the Roswell Field Office, 2909 West Second St., Roswell, NM 88201, (575) 627-0205 and (575) 361-2822
- 1. A Hydrogen Sulfide (H2S) Drilling Plan should be activated 500 feet prior to drilling into the <u>Canyon/Strawn</u> formations. If Hydrogen Sulfide is encountered, please report measured amounts and formations to the BLM.
- 2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
- 3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

B. CASING

Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work.

Centralizers required on surface casing as per Onshore Order 2.III.B.1.f

Possible lost circulation in Grayburg, San Andres
Possible high pressure gas bursts in Wolfcamp
Penn (Strawn, Atoka, Morrow) Section may be overpressured

1. The 13-3/8 inch surface casing shall be set at approximately 300 feet and cemented to the surface. If salt is encountered at a shallower depth set surface casing 25 feet above the top of the salt.

Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing

- a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
- b. Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement).
- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.
- 2. The minimum required fill of cement behind the <u>8-5/8</u> inch intermediate casing is:
 - Cement to surface. If cement does not circulate see B.1.a-d above.

Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing

Formation below the 8-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i.

- 3. The minimum required fill of cement behind the 5-1/2 inch production casing is:
 - Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.
- 4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

- 2. The appropriate BLM office shall be notified a minimum of **4 hours** in advance for a representative to witness the tests.
 - a. The tests shall be done by an independent service company.
 - b. The results of the test shall be reported to the appropriate BLM office.
 - c. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
 - d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.
 - e. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.
 - f. A variance to test only the surface casing to the reduced pressure of 1000 psi with the rig pumps is approved. The BOP will be tested to 5000 psi by an independent service company.

D. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** formation, and shall be used until production casing is run and cemented.

E. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed. Also please provide pressure results to BLM if these are run.

LB 4/28/08

VIII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Containment Structures

The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

Painting Requirement

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color Shale Green, Munsell Soil Color Chart # 5Y 4/2

- B. PIPELINES
- C. ELECTRIC LINES

IX. INTERIM RECLAMATION & RESERVE PIT CLOSURE

A. INTERIM RECLAMATION

If the well is a producer, interim reclamation shall be conducted on the well site in accordance with the orders of the Authorized Officer. The operator shall submit a Sundry Notices and Reports on Wells (Notice of Intent), Form 3160-5, prior to conducting interim reclamation.

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

At the time cuttings burial cell is to be reclaimed, operators should work with BLM surface management specialists to devise the best strategies to reduce the size of the location. Any reductions should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

B. Cuttings burial cell

The cuttings burial cell, when dried and closed, shall be recontoured, all trash removed, and reseeded as follows:

Seed Mixture 1, for Loamy Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be <u>no</u> primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection bye the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (small/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species		<u>lb/acre</u>
Plains lovegrass (Eragrostis intermedia)		0.5
Sand dropseed (Sporobolus cryptandrus)		1.0
Sideoats grama (Bouteloua curtipendula)		5.0

^{*}Pounds of pure live seed:

Pounds of seed x percent purity x percent gemination = pounds pure live seed (Insert Seed Mixture Here)

X. FINAL ABANDONMENT & REHABILITATION REQUIREMENTS

Upon abandonment of the well and/or when the access road is no longer in service the Authorized Officer shall issue instructions and/or orders for surface reclamation and restoration of all disturbed areas.

On private surface/federal mineral estate land the reclamation procedures on the road and well pad shall be accomplished in accordance with the private surface land owner agreement.